UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Kittitas Reclamation District — Project No. 10625-003
Washington

ORDER ISSUING LICENSE
(Minor Project)
(Issued November 16, 1995)

Kittitas Reclamation District (Kittitas) filed a license application under Part I of the Federal Power Act (FPA) 1/ to construct, operate, and maintain the proposed 800-kilowatt (kW) Taneum Chute Hydroelectric Project. The project would be located on the Bureau of Reclamation's (Reclamation) South Branch Canal in Kittitas County, Washington, 2/ on U.S. lands administered by the Bureau of Land Management and on private lands under easement to Reclamation.

Notice of the application has been published. Interior and the Washington Department of Fish and Wildlife filed motions to intervene. No agency objected to issuance of this license. Comments of the intervenors and of other agencies and individuals have been fully considered in determining whether, or under what conditions, to issue this license.

The Commission's staff issued a draft environmental assessment (EA) for this project on November 30, 1994. Comments on the draft EA have been addressed in the final EA, which is attached to and made part of this license. The staff also prepared a Safety and Design Assessment (S&DA) for this project, which is available in the Commission's public file.

The intervenors expressed concern about project effects on the Yakama Tribe's treaty-protected rights and resources, and on fish and wildlife resources. These concerns are discussed in the RECOMMENDATIONS OF FISH AND WILDLIFE AGENCIES section of this license and in the EA.

PROJECT DESCRIPTION

The proposed project would consist of an intake structure adjacent to the Taneum Chute intake, a 1,250-foot-long steel penstock, a fenced turbine deck containing four 200-kW generating

1/ 16 U.S.C. §§ 791(a) - 823(b).

2/ The Commission has signed a memorandum of understanding with the U.S. Department of the Interior (Interior) related to authorizing non-federal hydropower facilities at Reclamation projects. Interior does not contest Commission jurisdiction over hydropower development at the site of the Taneum Chute project.

units that discharge through draft tubes into the Chute's stilling basin, and a short transmission line. A detailed project description is contained in ordering paragraph (B)(2). As proposed, the project would use irrigation flows to generate energy and would produce about 1.86 gigawatthours (GWh) of electricity annually.

FINDINGS UNDER SECTION 10(A)(2)(c) OF THE FPA

Kittitas is a public body that does not sell electric power directly to any end-use customers. Kittitas, which is served by Puget Sound Power and Light Company, intends to use the power generated at the project or sell it to an electric utility.

Since it doesn't serve electric customers, and may either sell the project's power or use it to meet its pumping demands, Kittitas wouldn't be expected to have an electricity consumption efficiency improvement program. Therefore, energy conservation won't be further considered in relation to issuing this license.

WATER QUALITY CERTIFICATION

On September 10, 1991, Kittitas applied to the Washington Department of Ecology, Water Resources Division (Water Resources Division), for water quality certification for the Taneum Chute Project, as required by Section 401 of the Clean Water Act. The Water Resources Division received the request for certification on September 12, 1991. Since the Water Resources Division didn't act on the request within 1 year from the date of receipt, water quality certification is deemed waived pursuant to Section 4.38(f)(7)(ii) of the Commission's regulations.

Furthermore, by letter dated August 4, 1994, the Water Resources Division advised Kittitas that no response to the request for certification had been prepared.

COASTAL ZONE MANAGEMENT PROGRAM

The Taneum Chute project is not located in the state-designated coastal zone management area.

SECTION 4(e) OF THE FPA

Section 4(e) of the FPA requires that Commission licenses for projects located within United States reservations must include all conditions that the Secretary of the department under whose supervision the reservation falls shall deem necessary for the adequate protection and utilization of such reservation.

Interior submitted, by letter dated May 9, 1994, terms and conditions for use of the Taneum Chute, which is part of Reclamation's Yakama Project. The staff said in the draft EA

that it wasn't clear that the land on which Taneum Chute is located constitutes a reservation for the purposes of Section 4(e). Therefore, Interior's conditions addressing environmental concerns were considered in the EA under Section 10(a) of the FPA, rather than included as mandatory conditions under Section 4(e).

The only comments filed by Interior on the draft EA were from the U.S. Fish and Wildlife Service, indicating that the Service had reviewed the draft EA and had no objection to the finding of no significant impact. Consequently, Interior has provided no further support of their assertion of 4(e) authority. Interior's May 9, 1994, recommendations are summarized and addressed below.

1. Interior recommends that the licensee enter into an agreement with Reclamation to coordinate its plans for access to and activities on property administered by Reclamation. The agreement would include: (1) reasonable arrangements for access to and activities on the property and (2) charges to be paid by the licensee to Reclamation to cover costs that Reclamation incurs in relation to construction and operation of the project.

Coordination of access and activities is directed by Article 304 of this license. Regarding charges, Section 10(e)(2) of the FPA empowers the Commission to collect annual charges as a condition of hydropower licenses and states that such charges shall be the only charges assessed by any agency of the United States (see Article 201). The charges requested by Interior may be inconsistent with the FPA.

2. Interior recommends that design and construction of facilities that would be part of, or could affect the operation of the Yakama Project, be done in consultation with and subject to the approval of Reclamation. Coordination, only, is required by Articles 302 and 304. Article 302 reserves to the Commission authority to require changes in facility design.

3. Interior recommends that development of the hydropower project not impair the structural integrity or operation of the Yakama Project. This recommendation is covered by Articles 304 and 305.

4. Interior recommends that the licensee enter into an operation and maintenance agreement with Reclamation. Article 305 requires only that the licensee consult with Reclamation about operation and maintenance of project facilities. However, Article 203 requires that the licensee recognize the prior right of Federal work.

5. Interior recommends that all disturbed land areas be revegetated with indigenous plant species within 6 months of completion of project construction.

Kittitas proposes to prepare and implement an erosion and sediment control plan (ESCP) that includes revegetation of all disturbed land areas with indigenous plant species within 6 months of project completion. Article 407 requires Kittitas to develop a revegetation plan that includes revegetation of all disturbed areas with indigenous plants within 6 months of completion of the project. Article 407 also requires Kittitas to consult with Interior in developing the revegetation plan.

6. Interior recommends that the licensee have no claim against the United States arising from any changes in the operation of the Yakama Project. This condition is included as Article 202, to preserve Federal authority to change operation of the Yakama Project.

7. Interior recommends that the licensee recognize the prior right of Federal work associated with the Yakama Project. This condition is included as Article 203, to protect the Federal interest in the Yakama Project.

8. Interior recommends that the licensee provide to the FERC Regional Engineer copies of all correspondence between the licensee and Reclamation, and that the Regional Engineer not authorize construction until Reclamation has approved construction plans and specifications. Article 302 reserves to the Commission authority to require changes in facility design.

9. Interior recommends that the licensee approve the design of contractor designed cofferdams and deep excavations. This condition is unnecessary, since there won't be any cofferdams or deep excavations involved in this project.

10. Interior recommends that the licensee contact Reclamation's Regional Director within 60 days from license issuance to coordinate Reclamation conditions. This condition is unnecessary, since the articles attached to this license direct consultation with Reclamation at the appropriate times.

11. Interior recommends that before land-disturbing activities begin Kittitas develop an ESCP in consultation with Reclamation, the Bureau of Land Management, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the Washington Department of Fish and Wildlife, and the Washington Department of Ecology and that the plan be filed with the Commission, which would have authority to direct changes to the plan.

Kittitas proposes to develop just such a plan in consultation with all of the mentioned agencies prior to land-disturbing activities. Also, Article 402 requires Kittitas to develop an ESCP, including consultation with the mentioned agencies plus the Soil Conservation Service and any other interested parties and to file the plan with the Commission for approval prior to land-disturbing activities.

12. Interior recommends that Kittitas prepare and file with the Commission a Report on Recreational Resources to include development of recreational facilities.

The staff has determined that when water is in Taneum Chute, water velocity makes the chute too dangerous for recreational use. The staff also determined that the proposed project would have no effect on existing recreation and would not create any new recreational opportunities, since the surrounding lands are used for farming and grazing livestock. Therefore, Kittitas will not be required to develop a recreation plan.

Although Taneum Chute is part of Reclamation's Yakama Project, the Chute itself is located within an easement across some Bureau of Land Management-administered land 3/ and some privately owned land, rather than on a Federally owned reservation. Therefore, I concur that Interior's recommendations should be considered under Section 10(a), rather than included as mandatory conditions under Section 4(e), of the FPA.

RECOMMENDATIONS OF FISH AND WILDLIFE AGENCIES

Section 10(j) of the FPA requires the Commission to include license conditions, based on recommendations of federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act, for the protection of, mitigation of adverse impacts to, and enhancement of fish and wildlife, unless such conditions would conflict with the FPA or other law.

Recommendations were submitted pursuant to Section 10(j) by Interior's Fish and Wildlife Service, the National Marine Fisheries Service, and the Washington Department of Fish and Wildlife. The staff recommended in the EA that all agency recommendations subject to Section 10(j) be included in any license issued for this project. I concur and I am including them.

Recommendations considered outside the scope of Section 10(j) were considered under Section 10(a). These recommendations are addressed in the specific resource sections of the EA, and

3/ Public lands administered by the Bureau of Land Management are not considered reservations for the purposes of Section 4(e).

the conclusions shown in Table 3 on pages 33 and 34 of the EA. I concur with the EA's findings.

COMPREHENSIVE PLANS

Section 10(a)(2)(A) of the FPA requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, or conserving waterways affected by the project. Federal and state agencies filed 65 plans that address various resources in Washington. Of these, the staff identified three plans relevant to this project.4/ No conflicts were found.

COMPREHENSIVE DEVELOPMENT AND ECONOMIC EVALUATION

Sections 4(e) and 10(a)(1) of the FPA, 16 U.S.C. 797 (e) and 803(a)(1), require the Commission, in acting on applications for license, to give equal consideration to the power and development purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgement will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration. For the reasons discussed below, I conclude that the Taneum Chute Project does not conflict with any planned or authorized development and is best adapted to comprehensive development of the waterway for beneficial public uses.

In the EA, the staff evaluated three alternative actions: Kittitas' proposed project, Kittitas' proposal with additional mitigation, and the no-action alternative. Kittitas included the following mitigation measures as part of its proposal:

- Develop an erosion and sediment control plan to reduce the impact of land disturbing activities.
- If needed, when anadromous fish are reintroduced to Taneum Creek, install a fish barrier at the confluence of Taneum Chute and Taneum Creek to prevent adult salmonids from entering Taneum Chute.

4/ (1) Spokane Resource Area Management Plan and final Environmental Impact Statement, 1985, Department of the Interior, Spokane, Washington; (2) Northwest Conservation and Electric Power Plan, 1986, Power Planning Council, Portland, Oregon; and (3) Columbia River Basin Fish and Wildlife Program, 1987, Northwest Power Planning Council, Portland, Oregon.

- Schedule construction activities to minimize disturbances to wintering deer and elk.

- Develop a revegetation plan to include with the erosion and sediment control plan.

- Develop a plan of action if archeological sites are discovered during project construction or operation.

The staff recommended the following additional mitigation measures:

- That Kittitas install the fish barrier at the time of project construction, rather than after anadromous fish are reintroduced.

- That Kittitas develop a system to detect penstock or powerhouse failure and immediately return water to Taneum Chute, to prevent flow fluctuations in Taneum Creek.

- That native plant species be used when replanting disturbed areas.

- In the event that the Rocky Mountain Elk Foundation builds the visitor center it proposes near the project, and if noise from the project turbines affects visitors at the center, that soundproofing measures be implemented.

The staff selected Kittitas' proposed project with the additional mitigation measures listed above as the preferred option. This alternative was recommended because construction and operation of the project would: (1) have very minor environmental impacts; (2) allow Kittitas to generate power to be used to satisfy the Kittitas pumping demand or to sell to an electric utility; and (3) conserve nonrenewable fossil fuels and reduce atmospheric pollution.

The only staff-recommended mitigation measure that would affect the project's economics is building the fish barrier at the time of project construction, instead of when anadromous fish are reestablished in Taneum Creek. The fish barrier would protect the investment in fish protection that is being made in the Yakima River Basin and in Taneum Creek, at the relatively minor cost of $10,000 (annual cost of $2,000). I find that the benefits obtained from this mitigation justify the cost to Kittitas.

Based on the Commission's new approach to evaluating project economics 5/ the project as proposed by Kittitas would produce about 1.86 GWh of energy at a cost of about $114,000 or 61 mills/kilowatthour (kWh). The current cost of alternative power is about $56,000 or 30 mills/kWh. Therefore, the project would cost about $58,000 or 31 mills/kWh more than alternative power.

As described in the EA, a cooperative agreement has been signed to provide additional flows through Taneum Chute. However, since the agreement did not stipulate a flow, the staff evaluated the additional energy benefits for a range of flows, from 15 to 25 cubic feet per second. With these additional flows, the project could produce from about 2.4 to 2.8 GWh of energy annually, but would still cost about $41,000 to $30,000 annually, or 17 to 11 mills/kWh, respectively, more than alternative power.

The staff's evaluation of the economics of the project shows that the project appears to cost more than currently available alternative power. However, as the Commission explained in Mead, supra, our economic analysis is perforce inexact, and project economics is, moreover, only one of the many public interest factors we consider in determining whether or not, and under what conditions, to issue a license. 6/ Based on the record in this proceeding, which involves an existing irrigation canal, I conclude that it is in the public interest to license the project, conditioned as appropriate under Section 10(a) of the FPA, and leave to the licensee the decision of whether or not to construct the project in light of the above economic analysis.

I conclude that licensing the Taneum Chute Project with the additional mitigation would best adapt the project to a comprehensive plan for the Yakima River Basin.

LICENSE TERM

Section 6 of the FPA states that licenses under Part I of the FPA shall be issued for a period not to exceed 50 years.

5/ See Mead Corporation, Publishing Paper Division, 72 FERC Para. 61,027 (July 13, 1995).

6/ In analyzing public interest factors, we take into consideration the fact that hydroelectric projects offer unique electric utility system operational benefits, and that proposed projects may provide substantial benefits not directly related to utility operations, benefits that would be lost if a license were denied solely on economic grounds. Moreover, the Commission recognizes that a project which appears to cost more than currently available alternatives may not always be so situated. See City of Augusta, et al., 72 FERC ¶ 61,114.

Because the Taneum Chute Project would use water from a government dam and would involve an original license with substantial new construction, I am granting this license with a term of 50 years.

SUMMARY OF FINDINGS

Background information, analysis of impacts, support for related license articles, and the basis for a finding of no significant impact on the environment are contained in the attached EA. Issuance of the license is not a major federal action significantly affecting the quality of the human environment.

The project will be safe if constructed, operated, and maintained in accordance with the requirements of this license. Analysis of related issues is provided in the S&DA.

I conclude that the Taneum Chute Hydroelectric Project does not conflict with any planned or authorized development, and is best adapted to the comprehensive development of Taneum Creek for beneficial public use.

THE DIRECTOR ORDERS:

(A) This license is issued to Kittitas Reclamation District (licensee) for a period of 50 years, effective the first day of the month in which it is issued, to construct, operate, and maintain the Taneum Chute Hydroelectric Project. This license is subject to the terms and conditions of the FPA, which is incorporated by reference as part of this license, and to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, as shown by Exhibit G:

Exhibit No.	FERC No. 10625-	Showing
G-1	5	Project Map
G-2	6	Project Map
G-3 filed 11/8/93	7	BLM right-of-way in Section 32

(2) Project works consisting of: (a) a gated intake structure adjacent to the existing Taneum Chute intake; (b) a buried 42-inch-diameter, 1,250-foot-long steel penstock; (c) a 60-foot-long, 11-foot-wide fenced turbine deck containing four 200-kW generating units that discharge through draft tubes into the Chute's stilling basin; (d) a buried connection line from the transformer to a planned Puget Sound Power & Light Company distribution line; and (e) appurtenant facilities.

The project works generally described above are more specifically described in exhibit A of the license application and shown by exhibit F:

Exhibit No.	FERC No. 10625-	Showing
10625-003-1	1	Plans and sections of turnout
10625-003-2 revised 11/22/93	2	Plans and sections of powerhouse and stilling basin
10625-003-3	3	Transmission system details
10625-003-4 revised 11/22/93	4	Overview plan of project features

(3) All of the structures, fixtures, equipment, or facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) Those sections of exhibits A, F, and G described above are approved and made part of the license.

(D) The following sections of the Act are waived and excluded from the license for this minor project:

4(b), except the second sentence; 4(e), insofar as it relates to approval of plans by the Chief of Engineers and the Secretary of the Army; 6, insofar as it relates to public notice and to the acceptance and expression in the license of terms and conditions of the Act that are waived here; 10(c), insofar as it relates to depreciation reserves; 10(d); 10(f); 14, except insofar as the power of condemnation is reserved; 15; 16; 19; 20; and 22.

(E) This license is subject to the articles set forth in Form L-17 (October 1975) entitled "Terms and Conditions of License for Unconstructed Minor Project Affecting Lands of the United States", except Article 15, and the following additional articles:

Article 201. The licensee shall pay the United States the following annual charges, effective as of the date of commencement of project construction:

(a) For the purposes of reimbursing the United States for the costs of administering Part I of the Federal Power Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 800 kilowatts. Under the regulations currently in effect, projects with authorized installed capacity of less than or equal to 1,500 kilowatts are not assessed an annual administrative charge.

(b) For the purpose of recompensing the United States for utilization of surplus water or water power from a government dam.

Article 202. The licensee shall have no claim against the United States arising from any future changes made to meet authorized Federal purposes, from the effect of any changes made in releases from or operation of the Yakama Project, from modifications resulting from dam safety requirements, or from any changes in reservoir level of the Yakama Project.

Article 203. The licensee shall recognize the prior right of any Federal work, either by force account or by contractors or both, associated with the Yakama Project, associated facilities, access roads, and the operation and maintenance thereto, whether ongoing at the time of commencement of work by the licensee or initiated subsequent to start of the work by the licensee, and to coordinate the licensee's work with the Federal work.

Article 204. Within 45 days of the date of issuance of the license, the licensee shall file a complete original set and two complete duplicate sets of aperture cards of all the approved drawings, and a third, partial duplicate set of aperture cards showing only the Exhibit G drawings. The set of originals must be reproduced on silver or gelatin 35mm microfilm. The duplicate sets are copies of the originals made on diazo-type microfilm. All microfilm must be mounted on type D (3-1/4" x 7-3/8") aperture cards. The licensee shall submit two copies of form FERC-587 with the aperture cards.

Prior to microfilming, the FERC Drawing Number (10625-1 through 10625-7) shall be shown in the margin below the title

block of the approved drawing. After mounting, the FERC Drawing Number must be typed on the upper right corner of each aperture card. Additionally, the Project Number, FERC Exhibit (e.g., F-1, G-1, etc.), Drawing Title, and date of this license must be typed on the upper left corner of each aperture card.

The complete original set and one complete duplicate set of aperture cards, and one copy of the form FERC-587, must be filed with the Secretary of the Commission, ATTN: DPCA/ERB. The second complete duplicate set of aperture cards shall be filed with the Commission's Portland Regional Office. The third, partial duplicate set of aperture cards (exhibit G only) and the remaining copy of form FERC-587 shall be filed with the Bureau of Land Management Office at the following address:

State Director, Oregon State Office
Bureau of Land Management
Lands and Minerals Ajudication
Section (OR-943.3)
Attn: FERC Withdrawal Recordation
P.O. Box 2965
Portland, OR 97208-0039

Article 205. The licensee shall clear and keep clear to an adequate width all lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project that result from maintenance, operation, or alteration of the project works. All clearing of lands and disposal of unnecessary material shall be done with due diligence to the satisfaction of the authorized representative of the Commission and in accordance with appropriate federal, state, and local statutes and regulations.

Article 301. The licensee shall commence construction of the project works within 2 years from the date of issuance of this license and shall complete construction of the project within 4 years from the date of issuance of this license.

Article 302. The licensee shall, at least 60 days prior to the start of construction, submit one copy to the Commission's Portland Regional Director, two copies to the Commission (one of these shall be a courtesy copy to the Director, Division of Dam Safety and Inspections), one copy to the United States Bureau of Land Management, and one copy to the United States Bureau of Reclamation, of the final contract drawings and specifications for pertinent features of the project, such as water retention structures, powerhouse, and water conveyance structures. The Commission may require changes in the plans and specifications to assure a safe and adequate project.

If the licensee plans substantial changes to location, size, type, or purpose of the water-retention structures, powerhouse,

or water conveyance structures, the plans and specifications must be accompanied by revised Exhibit F and G drawings, as necessary.

Article 303. The licensee shall, within 90 days after finishing construction, file for Commission approval revised Exhibits A, F, and G to describe and show the project facilities as built.

Article 304. The licensee shall coordinate with the United States Bureau of Land Management and Bureau of Reclamation its plans for access to and site activities on lands and property administered by Bureau of Land Management and Bureau of Reclamation so the authorized purposes, including operation of the Bureau of Reclamation facilities, are protected.

Article 305. The licensee shall also consult with the United States Bureau of Reclamation on the responsibilities for the operation and maintenance of specific structures or facilities on lands and property administered by the Bureau of Reclamation.

Article 401. The Commission reserves the authority to order, upon its own motion or upon the recommendation of federal or state fish and wildlife agencies, affected Indian Tribes, or the Northwest Power Planning Council, alterations of project structures and operation to take into account to the fullest extent practicable the regional fish and wildlife program developed and amended pursuant to the Pacific Northwest Electric Power Planning and Conservation Act.

Article 402. At least 6 months before the start of any land-disturbing or land-clearing activities, the licensee shall file with the Commission, for approval, a finalized plan to control erosion, slope instability, and to minimize the quantity of sediment resulting from project construction and operation.

The plan shall be based on actual site geological, soil, and groundwater conditions and on project design, and shall include, at a minimum, the following:

(a) A description of the actual site conditions;

(b) Measures proposed to control erosion, to prevent slope instability, and to minimize the quantity of sediment resulting from project construction and operation;

(c) Detailed descriptions, functional design drawings, and specific topographic locations of all control measures;

(d) Steps and measures to be taken to lessen construction impacts if a major storm event occurs during project construction;

(e) The location of all borrow and silt disposal sites, including methods of removal and transportation;

(f) Measures that would be taken to ensure livestock would be safely contained during project construction, including replacement of all fences and animal control structures that will be disturbed during project construction; and

(g) A specific implementation schedule and details for monitoring and maintenance programs for project construction and operation.

The licensee shall prepare the plan after consultation with the Bureau of Reclamation, the Bureau of Land Management, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the Soil Conservation Service, the Washington Department of Fish and Wildlife, and any other interested parties. The licensee shall include with the plan documentation of consultation and copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations prior to filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on geological, soil, and groundwater conditions at the site.

The Commission reserves the right to require changes to the plan. No land-disturbing or land-clearing activities shall begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 403. At least 6 months before the start of project construction, the licensee shall file with the Commission, for approval, a plan for the design and construction of a system that will automatically detect a penstock or powerhouse failure and immediately return the water flow to Taneum Chute to prevent flow fluctuations in Taneum Creek.

The plan, at a minimum, shall include:

(a) A design drawing;

(b) A schedule for installation and testing of the system prior to operation of the project;

(c) A schedule for annual testing of the system for the life of the project; and

(d) A description of contingency measures to manually close off the conduit or penstock when the system is not operational.

The licensee shall prepare the plan after consultation with the Bureau of Reclamation, the Bureau of Land Management, the U.S. Fish and Wildlife Service, the Soil Conservation Service, the Washington Department of Fish and Wildlife, and any other interested parties. The licensee shall include with the plan documentation of consultation and copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations prior to filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. No land-disturbing or land-clearing activities shall begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 404. The licensee shall operate the project in a run-of-river mode, operating only on flows that are available for irrigation and/or fish enhancement. The licensee shall operate the project only during the regular irrigation season (April through October). The licensee shall neither appropriate the rights to additional flows solely for the purpose of hydropower generation, nor operate the project on a year-round basis without (a) conducting additional studies to assess the environmental impacts of operating the project on a year-round basis; and (b) filing an application and receiving approval for amendment of license.

Article 405. At least 6 months before the start of any land-disturbing or land-clearing activities at the project site, the licensee shall file, for Commission approval, detailed design drawings of the licensee's proposed fish barrier together with a schedule to construct and install the facilities before operation of the project.

The licensee shall prepare the plan, drawings, and construction schedule after consultation with the Bureau of Reclamation, the Bureau of Land Management, the U.S. Fish and Wildlife Service, the Washington Department of Fish and Wildlife, the National Marine Fisheries Service, and the Yakama Indian Nation. The licensee shall include with the drawings documentation of consultation, copies of comments and recommendations on the drawings and schedule after they have been

prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the licensee's proposed fish barrier. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the drawings and schedule with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed fish barrier and schedule. Land-disturbing or land clearing activities associated with the installation of the fish barrier shall not begin until the licensee is notified by the Commission that the filing is approved. Upon Commission approval, the licensee shall implement the proposal, including any changes required by the Commission.

Article 406. The licensee shall implement the construction schedule filed on June 3, 1995, to minimize potential disturbances to wintering deer and elk. The licensee shall obtain the concurrence of the U.S. Fish and Wildlife Service, the Washington Department of Fish and Wildlife, the Bureau of Reclamation, and the Bureau of Land Management before making any modification to this plan, and shall notify the Commission of the agencies's concurrence as soon as possible, but no later than 10 days after implementing the modification. The Commission reserves the right to require changes to the plan.

Article 407. At least 6 months before the start of any land-disturbing or land-clearing activities at the project, the licensee shall file with the Commission, for approval, a plan to revegetate disturbed areas with native plant species beneficial to wildlife.

The plan shall describe the location of the areas to be revegetated and at a minimum shall include:

(a) A description of the plant species used and planting densities;

(b) Fertilization and irrigation requirements;

(c) A monitoring program to evaluate the effectiveness of the plantings;

(d) Provisions for the filing of monitoring reports with the Commission;

(e) A description of procedures to be followed if monitoring reveals that the revegetation is not successful; and

(f) An implementation schedule that provides for revegetation as soon as practicable after the beginning of land-disturbing activities.

The licensee shall prepare the plan after consulting with the U.S. Fish and Wildlife Service, the Bureau of Land Management, the Bureau of Reclamation, and the Washington Department of Fish and Wildlife. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the plan accommodates the agencies' comments. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons based on project-specific information.

The Commission reserves the right to require changes to the plan. No land-disturbing or land-clearing activities shall begin until the Commission notifies the licensee that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 408. If archeological or historic sites are discovered during project construction or operation or any future activities at the project, the licensee shall: (1) consult with the Washington State Historic Preservation Officer (SHPO), the Bureau of Reclamation (BOR), and the Bureau of Land Management (BLM); (2) prepare a cultural resources management plan to evaluate the significance of the sites and to avoid or mitigate any impacts to any sites found eligible for inclusion in the National Register of Historic Places; (3) base the plan on the recommendations of the SHPO, the BOR, and the BLM and on the Secretary of the Interior's Guidelines for Archeology and Historic Preservation; (4) file the plan for Commission approval, together with the written comments of the SHPO, the BOR, and the BLM on the plan; and (5) take the necessary steps to protect the discovered sites from further impact until notified by the Commission that all of these requirements have been satisfied.

The Commission may require a cultural resources survey and changes to the cultural resources management plan based on the filings. The licensee shall not implement a cultural resources management plan or begin any land-clearing or land-disturbing activities in the vicinity of any discovered sites until informed by the Commission that the requirements of this article have been fulfilled.

Article 409. In the event the Rocky Mountain Elk Foundation begins construction of the proposed visitor center at any time during the term of license, the licensee shall file with the

Commission a report showing the results of a study of the noise from the turbines to determine the effect project operation would have on visitors to the visitor center, and if necessary a plan to reduce noise from project operation. The report shall be filed with the Commission within 15 months after the Elk Foundation begins construction of the visitor center.

The study must include an auditory analysis from the preferred location of the proposed visitor center, both BEFORE (baseline) and AFTER the project becomes operational. To provide a reliable comparison, the environmental conditions (including time of year, wind direction and speed, relative humidity, and water flow) must be approximately the same during the two study periods. NOTE: The baseline analysis must be done regardless of construction status of the visitor center.

The licensee shall conduct the study after consulting with the Elk Foundation and the Bureau of Reclamation (Reclamation). The licensee shall include with the report documentation of consultation, copies of comments and recommendations on the completed report after it has been prepared and provided to the specified entities, and specific descriptions of how the entities' comments are accommodated by the report. The licensee shall allow a minimum of 30 days for the entities to comment and make recommendations before filing the report with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require additional studies to determine the effect project operation would have on visitors to the proposed visitor center.

If the results of the study show that project operation creates more noise than baseline conditions, the licensee shall include in the filing a plan to reduce noise from project operation to a level that approximates the baseline level. The plan shall include descriptions and drawings of the proposed measures to reduce turbine noise and an implementation and monitoring schedule.

The licensee shall prepare the plan after consulting with the Elk Foundation and Reclamation. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the specified entities, and specific descriptions of how the entities' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the entities to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. No construction activities associated with the plan shall begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 410. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and water for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction, (2) consider whether the planting of

vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina; (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured

horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Hydropower Licensing, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved exhibit R or approved report on recreational resources of an exhibit E; or, if the project does not have an approved exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to insure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries.

The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised exhibit G or K drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

(F) The licensee shall serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to the Commission filing. Proof of service on these entities must accompany the filing with the Commission.

(G) This order is issued under authority delegated to the Director and constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of this order, pursuant to 18 C.F.R. § 385.713. The filing of a request for rehearing does not operate as a stay of the effective date of this order or of any other date specified in this order, except as specifically ordered by the Commission. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

Fred E. Springer
Director, Office of
Hydropower Licensing

FINAL ENVIRONMENTAL ASSESSMENT

FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF HYDROPOWER LICENSING
DIVISION OF PROJECT REVIEW

August 9, 1995

Taneum Chute Hydroelectric Project
FERC No. 10625-003, Washington

I. INTRODUCTION

On March 27, 1992, Kittitas Reclamation District (Kittitas) filed a license application to construct and operate the Taneum Chute Hydroelectric Project (FERC No. 10625-003) with an installed capacity of 800 kilowatts (kW). The proposed project would be located within the existing Taneum Chute Irrigation Canal which gets its water from the Yakima River, and is part of the Kittitas Division, Yakima Irrigation Project, near the towns of Thorp and Ellensburg, in Kittitas County, Washington. (Figure 1).

The proposed project would occupy about four acres of land administered by the Bureau of Land Management (BLM) and about seven acres of land under easement to the Bureau of Reclamation (BOR).

The Federal Energy Regulatory Commission (Commission) issued the Taneum Chute Hydroelectric Project Draft Environmental Assessment (DEA) for comment on November 30, 1994. In response, the Commission received 3 comment letters that are identified in section IV.D. of this final environmental assessment (EA). The comments were reviewed and evaluated by the Commission staff. The sections of the DEA that have been modified as a result of comments received are identified in the staff responses to the right of the comment letters in Appendix A.

II. PURPOSE AND NEED FOR ACTION

A. Purpose of Action

The Commission must decide (1) whether to issue a license to Kittitas, and (2) what, if any conditions should be placed in the license to protect or enhance existing environmental resources and/or to mitigate for any adverse environmental impacts that would occur due to project construction and operation.

In this Final Environmental Assessment (EA), we (the Commission staff) assess the environmental and economic effects of issuing a license to construct and operate the Taneum Chute

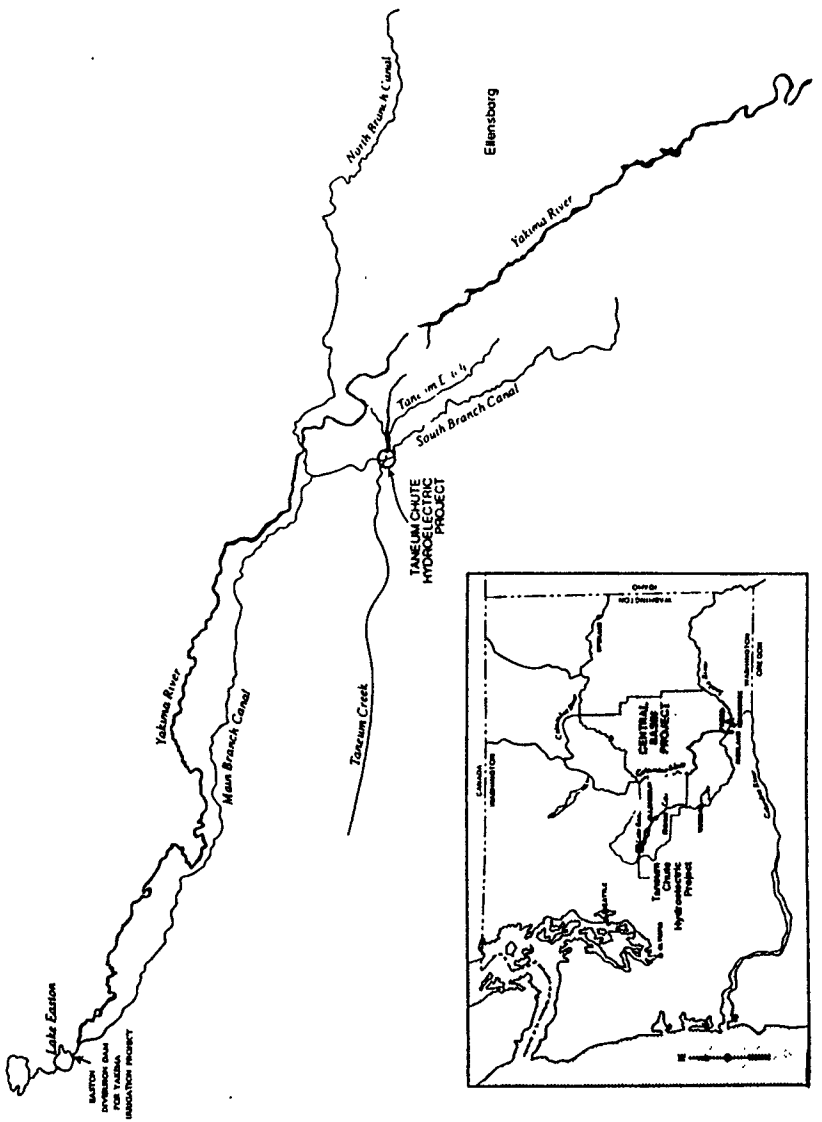

Figure 1. Location of the Taneum Chute Hydroelectric Project (Source: Kittitas Reclamation District).

Project a[illegible]posed by Kittitas and the proposed project with our recommended environmental measures. We also consider the effects of the no-action alternative.

B. Need for Power

Kittitas is a reclamation district that has no distribution system and no responsibility to satisfy the electric power needs of end-use consumers. They plan to sell the entire proposed project output to a utility or use the project's power to satisfy part of their pumping needs.

The proposed project is located in the Northwest Power Planning Council (Council) area, within the Northwest Power Pool area of the Western Systems Coordination Council region. The Council predicts that a need for more power is likely to exist in the Pacific Northwest sometime during the 1990's. Firm energy provided by the project would, depending on cost, be useful in meeting a part of the projected need.

To find how other planning bodies in the region view load projections and the need for more resources, we looked at the latest load projections and needs analyses of the Bonneville Power Administration (BPA) and the Pacific Northwest Utilities Conference Committee (PNUCC). Both planning bodies also show a need for power exists in the region with resources now being added to meet system needs.

III. PROPOSED ACTION AND ALTERNATIVES

A. Proposed Project

1. Project Description

The proposed project would be located in the Taneum Chute irrigation canal which is used to transport water from the South Branch Canal to Taneum Creek where it is used for irrigation. Kittitas would construct the following project facilities (Figure 2):

- A gated intake structure adjacent to the existing Taneum Chute intake.
- A buried 42-inch-diameter, 1,250-foot-long concrete and steel penstock paralleling Taneum Chute.
- A 60-foot-long, 11-foot-wide turbine deck containing four 200-kW generating units (800kW total capacity) located in Taneum Chute where Taneum Road Bridge crosses Taneum Chute.

TANEUM CHUTE HYDROELECTRIC PROJECT

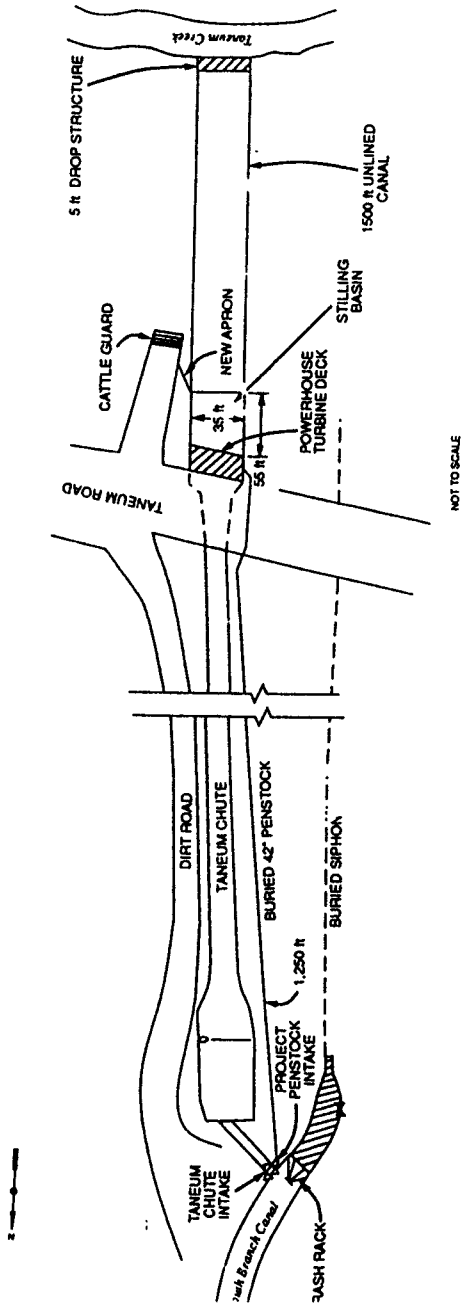

Figure 2. Taneum Chute Hydroelectric Project facilities (Source: Kittitas Reclamation District).

- A buried connection line from the turbine decks to the Puget Sound Power and Light Company's distribution line.

- Appurtenant facilities.

2. Project Operation

The project would only operate during the irrigation season--April through October--on irrigation flows and fish enhancement flows when available as a result of the Cooperative Agreement already in force. The project would not operate during the non-irrigation season. All flows in the South Branch Canal that would be diverted to Taneum Creek would pass through the penstock during this period if the flows are at or below the maximum hydraulic capacity of the plant--56 cubic feet per second (cfs). When flows are higher than 56 cfs, the excess flows would reach Taneum Creek via Taneum Chute. The project would use a static head of 205 feet with a minimum hydraulic capacity of 14 cfs and maximum hydraulic capacity of 56 cfs. An attendant would visit the project once a day to open or close the gates that would adjust the flows.

3. Proposed Mitigative Measures

Kittitas proposes to:

- Develop an Erosion and Sediment Control Plan to reduce the impact of land disturbing activities.

- If needed, when anadromous fish are reintroduced to Taneum Creek, install a simple fish barrier above the drop structure at the confluence of Taneum Chute and Taneum Creek to prevent adult salmonids from entering Taneum Chute.

- Develop a revegetation plan to include with the erosion and sediment control plan.

- Develop a plan of action if archeological sites are discovered during project construction or operation.

We discuss each of the proposed mitigative measures in the individual resource sections of the EA.

4. Mandatory Requirements

a. Federal Land Management Conditions

In the draft EA, we said it wasn't clear if the land on which the project is located constitutes a "reservation" for

purposes of Section 4(e) of the Federal Power Act (FPA). In response to the draft EA no comments or new information were filed supporting Interior's 4(e) authority. Therefore, we have determined that the land on which the project is located does not constitute a "reservation" for purposes of Section 4(e). However, the preliminary conditions submitted by Interior on May 9, 1994, that deal with environmental issues are considered in this final EA pursuant to Section 10(a)(1) of the FPA.

B. Staff's Modification of Kittitas' Proposal

In addition to Kittitas' proposal, we considered what, if any, environmental protection, mitigation, and enhancement measures would be beneficial to resources affected by the proposed project and its operation. The measure that we recommend as a modification of Kittitas' proposal is to install a fish barrier at the confluence of Taneum Chute and Taneum Creek prior to project operation rather than waiting to see if it is needed.

C. No-Action Alternative

The no-action alternative, denial of a license, would keep Kittitas from producing electrical power at the site and altering the existing environment of the proposed project area.

IV. CONSULTATION AND COMPLIANCE

A. Agency Consultation

Commission regulations require applicants to consult with the appropriate resource agencies before filing a license application. Prefiling consultation initiates compliance with the National Environmental Policy Act, the Fish and Wildlife Coordination Act, the Endangered Species Act, the National Historic Preservation Act, and other federal statutes.

Resource agencies and interested parties also have an opportunity to provide comments for the project. The Commission issued the public notice on March 16, 1994, stating the project was ready for environmental analysis. The following entities filed final comments on the application after the public notice.

Commenting Entities	Date of Letter
US Dept of Interior Fish and Wildlife Service	May 9, 1994
National Marine Fisheries Service	May 12, 1994

Wash Department of
Fish and Wildlife May 14, 1994

We address the agencies' comments and concerns raised in these letters in the appropriate sections of the EA.

B. Interventions

In addition to filing comments, agencies, organizations and individuals may file motions to intervene and become a party to any subsequent proceedings. Washington Department of Fish and Wildlife and the U.S. Department of the Interior both filed motions to intervene, on May 10, 1994, and May 25, 1994, respectively. Both agencies have been entrusted to conserve, manage and enhance resources that could be affected by the proposed project. While neither agency is opposed to the project, both have environmental concerns about fish and wildlife resources and the Yakima Indian Treaty rights and resources.

We address the concerns raised in these interventions in this EA.

C. Scoping

Before preparing this EA, we conducted scoping of the Taneum Chute Project to determine what issues and alternatives should be addressed. A scoping document was distributed to a variety of concerned agencies and private parties on March 15, 1994. We asked for written comments to be filed with the Federal Energy Regulatory Commission no later than May 15, 1994.

The scoping document and the notice ready for environmental analysis were distributed at the same time. Section IV reflects the agencies that provided comments and recommendations and we discuss the comments and recommendations in the resource sections of this EA.

D. Comments on the Draft Environmental Assessment

Commenting Entities	Date of Letter
Kittitas County Planning Department	December 9, 1994
US Dept of Interior Fish and Wildlife Service	December 27, 1994
Washington Department of Ecology Washington Dept. Fish and Wildlife	December 28, 1994

E. Pacific Northwest Power Planning and Conservation

Under section 4(h) of the Pacific Northwest Power Planning and Conservation Act, the Council developed the Columbia River Basin Fish and Wildlife Program to protect, mitigate, and enhance the fish and wildlife resources associated with development and operation of hydroelectric projects within the Columbia River Basin. Section 4(h) states that responsible federal and state agencies should provide equitable treatment for fish and wildlife resources, in addition to other purposes for which hydropower is developed, and that these agencies shall take into account, to the fullest extent practicable, the program adopted under the Pacific Northwest Power Planning and Conservation Act.

The program directs agencies to consult with federal and state fish and wildlife agencies, appropriate Indian tribes, and the Council during the study, design, construction, and operation of any hydroelectric development in the basin. At the time the application was filed, our regulations required applicants to consult with the appropriate federal and state fish and wildlife agencies and tribes before filing, and after filing, to provide these groups with opportunities to review and to comment on the application. Kittitas has followed this consultation process, and the relevant federal and state fish and wildlife agencies and tribes have reviewed and commented on the application.

The program also states that authorization for new hydroelectric projects should include conditions to mitigate the impacts of the project on fish and wildlife resources (sections 12.1A.1 & 12.1A.2). The specific provisions of section 12.1A.1 & 12.1A.2 that apply to the proposed project calls for: (1) specific plans for fish facilities prior to construction; (2) assurance that the project will not degrade fish habitat or reduce numbers of fish; (3) assurance all fish protection measures are fully operational at the time the project begins operation; (4) timing construction activities, insofar as practical, to reduce adverse effects on wintering grounds; and (5) replacing vegetation if natural vegetation is disturbed.

Our recommendations in this environmental assessment (section V.B. 2 & 3) are consistent with the applicable provisions of the program, listed above. Further, a condition of any license issued would reserve to the Commission the authority to require future alterations in project structures and operations to take into account, to the fullest extent practicable, the applicable provisions of the program. The project is not located within a protected area.

F. Water Quality Certification

On September 10, 1991, Kittitas applied to the Washington Department of Ecology, Water Resources Division (WDE), for a

water quality certification for the Taneum Chute Project, as required by section 401 of the Clean Water Act. WDE received Kittitas' request for water quality certification on September 12, 1991. Since WDE didn't act on the request within 1 year from the date of receipt, pursuant to section 4.38(F)(7)(i), water quality certification is deemed waived.

V. ENVIRONMENTAL ANALYSIS[1]

This section describes the general environmental setting of the project locale, the projects' potential for contributing to cumulative impacts, and then discusses each environmental resource affected by the action and no-action alternative. In our detailed assessment of resources we first describe the affected environment -- which is the existing condition against which to measure anticipated changes of the proposed project and any action alternative -- and then we discuss environmental effects of the project including proposed protection, mitigation, and enhancement measures. Our analysis includes both site specific and cumulative effects. Where trade-offs with power or other nonpower resources must be made, the final conclusions are found in the Comprehensive Development and Recommended Alternatives section.

A. General Description of the Yakima River Basin

The proposed project would be located in the Yakima River Basin, a subbasin of the Columbia River Basin. The Yakima River Basin is a 6,155-square-mile area in central Washington (Figure 3). Major tributaries of the Yakima River in the upper portions of the basin include the Cle Elum, Swauk, and Teanaway Rivers, while the lower portion tributaries are the Naches River, and Ahtanum, Toppenish, and Satus Creeks.

Farming and grazing are the main land uses. The Wenatchee National Forest, Mt Baker Snoqualmie National Forest, and the Yakima Indian Reservation are a few of the natural attractions in the Yakima River Basin (Figure 3).

The proposed project would be located within Taneum Creek Valley, in the eastern foothills of the Cascade Range. The valley is oriented east and west. Taneum Creek valley and the surrounding valleys are dry and arid and require irrigation for livestock and crop production.

The proposed project would be constructed adjacent to the Taneum Chute irrigation canal. The water for Taneum Chute comes

[1] Unless otherwise indicated, the source of our information is Taneum Chute Hydroelectric Project application (Kittitas Reclamation District, March 27, 1992).

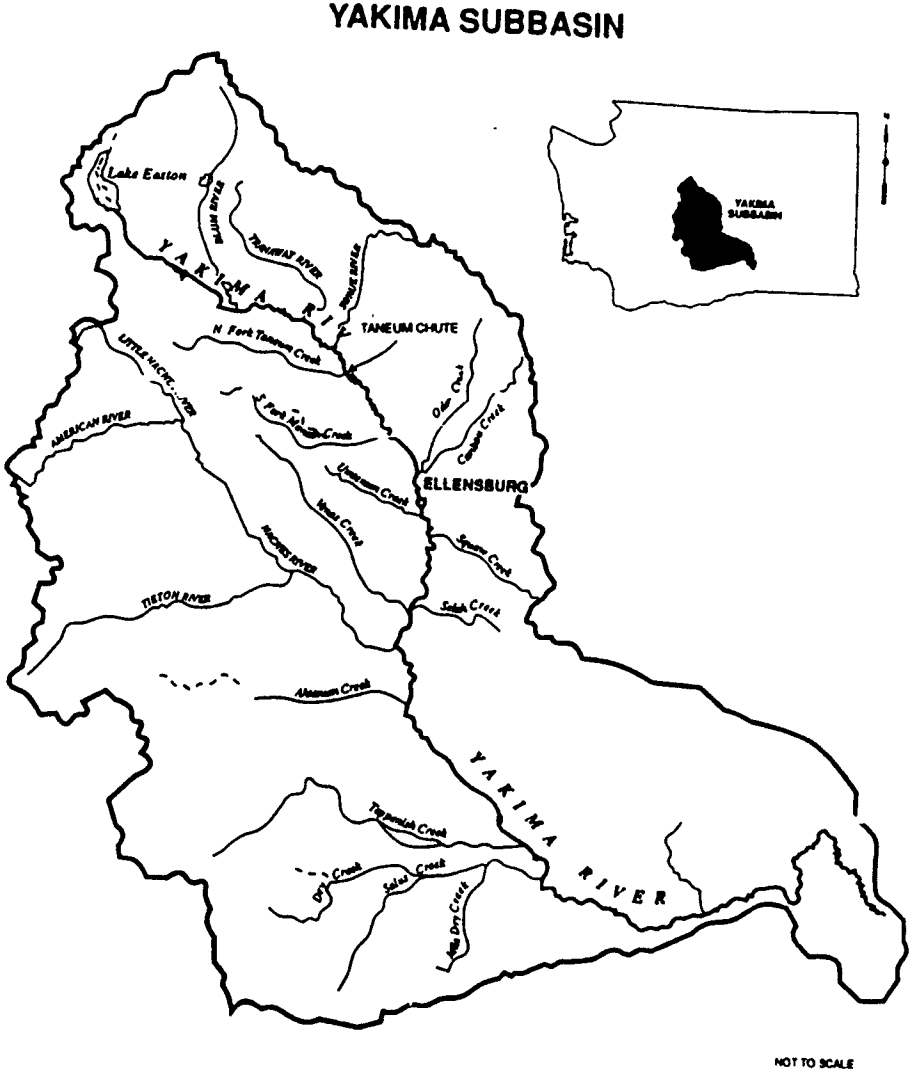

Figure 3. Yakima River Basin (Source: staff).

from Lake Easton. Lake Easton is located on the Yakima River and is a man-made 8,000 acre-foot regulating reservoir. The reservoir is operated to provide water into the Kittitas Main Branch Canal during the irrigation season.

The Main Branch Canal bifurcates about 28 miles below Lake Easton and becomes the North and South Branch Canals. Taneum Chute is located on the South Branch Canal, about 2 miles from the bifurcation. Taneum Chute diverts flows from the South Branch Canal to the Taneum Ditch Irrigation Company (an independent irrigation company). The water delivered to the Taneum Ditch Company by Taneum Chute is used to satisfy the Taneum Ditch Company's irrigation commitments.

B. Proposed Action & Action Alternatives

1. Geology and Soils.

Affected Environment: Low valley plains and terraces, known as the Kittitas Valley, extend northwest to southeast through the center of Kittitas County. Large hilly and mountainous areas surround the Kittitas Valley. The proposed project would be located on the north side of Taneum Creek Valley, along the eastern foothills of the Cascade Mountain Range.

The soils in the project area are deep and well drained. They were formed in loess and old alluvium and glacial till and range from clay loam, cobbly clay loam to gravelly clay loam with vegetation of grasses and shrubs.

Environmental Impacts and Recommendations: Land-disturbing activities for construction of the penstock and turbine deck would result in short-term disturbance of pasture lands and the existing concrete chute. Kittitas proposes to construct the project according to the schedule in section V.3, table 2, page 21, and to develop an erosion and sediment control plan (ESCP) prior to land-disturbing activities.

Staff has determined that project construction would have minimal effects to the existing environment if an ESCP is developed. Therefore, prior to land-disturbing activities, Kittitas should develop an ESCP that would include surface runoff control methods such as hay bale and cloth silt fences, and locations of spoils and materials that would be used during construction. This should include the methods that would be used to protect and stabilize the spoils during and after construction.

Unavoidable Adverse Impacts: Construction of the project could have a short-term adverse impact on about one acre of pasture land.

2. Aquatic Resources

Affected Environment:

Streamflow

During the irrigation season (April through October), water passes from the South Branch Canal, through Taneum Chute to Taneum Creek to provide additional water for irrigation.

During non-irrigation periods, Taneum Chute is dry. The seasonal period of Taneum Chutes' operation can vary from year to year, depending on irrigation need and water availability. Chute operation has begun as early as May 1 and as late as July 3 and has ceased as early as September 8 and as late as October 15.

Data collected from 1983 to 1990 by Kittitas at the upstream end of Taneum Chute indicate that mean monthly flows in Taneum Chute during the irrigation season range from a low of 8.2 cfs in May to a high of 73 cfs in August (table 1). We determined the average flow to be about 54.7 cfs during the 6 months of chute operation.

Water Quality

Water quality in Taneum Chute is classified by Kittitas as good to excellent and as being in compliance with applicable state standards. The state of Washington defines "excellent" (class A) surface water quality as having water temperatures not exceeding 18.0 degrees celsius (C) and dissolved oxygen (DO) levels exceeding 8.0 milligrams per liter (mg/L). The state defines "good" (class B) surface water quality as having water temperatures not exceeding 21 degrees C and DO levels exceeding 6.5 mg/L.

Table 1. Average monthly flows in Taneum Chute for the period of 1983 through 1990, with the average number of days the flow was present (Source: Kittitas).

Month	Flow (cfs)	Average # of Days
May	8.2	5
June	33.1	20
July	64.2	31
August	73.0	31
September	53.8	26
October	33.2	8

Water Rights

Kittitas contracts the water right for project waters from BOR. The designated uses of the water right include irrigation, domestic water supply, and power production. The project would only operate on existing flows and would require no additional diversions or consumptive withdrawals. Therefore, the project would not affect any existing water rights in the area.

Fishery

Taneum Chute does not contain any fish species because: (1) access of fish species to Taneum Chute is limited by screening facilities located at the Main Canal's intake at Easton Diversion Dam; and (2) a 5-foot-high drop structure at the confluence of Taneum Creek and Taneum Chute excludes fish from entering Taneum Chute.

Taneum Creek supports a limited resident rainbow trout population and, historically, anadromous fish species inhabited Taneum Creek. However, for years, inadequate instream flows in lower Taneum Creek (caused by irrigation diversions) have prevented the migration of adult and juvenile chinook, coho, and steelhead from the Yakima River into Taneum Creek, resulting in the loss of these stocks in Taneum Creek (letter from John A. Easterbrook, Fishery Biologist, Washington Department of Fish and Wildlife, Yakima, Washington, May 14, 1994). Since 1990, Taneum Creek has been identified in the Yakima River Basin Water Enhancement Project as an appropriate location to study the options for enhancing water supplies to improve the resident rainbow trout population and reestablish anadromous salmonids (Taneum Creek Habitat Enhancement, Fish Passage and Protective Facilities Evaluation Cooperative Project, September 21, 1994).

In response to this effort, Kittitas has entered into a cooperative agreement to provide flows to Taneum Creek. The Agreement, the Taneum Creek Habitat Enhancement, Fish Passage and Protective Facilities Evaluation Cooperative Project 1994, between Washington Department of Fisheries and Wildlife (WDFW), Bonneville Power Administration (BPA), U.S. Bureau of Reclamation (BOR), and the Yakima Indian Nation (YIN), was signed September 21, 1994. The purpose of the agreement is to enhance all, (resident and anadromous) fishery resources in Taneum Creek.

The cooperative agreement requires Kittitas to transport water from the Yakima River (Easton Diversion) to Taneum Creek via Taneum Chute for the purpose of supplying Taneum Creek with enhanced instream flows for the fishery resources. The enhanced flow will be provided at no cost to the cooperating agencies. Water will only be transported when: (1) Kittitas' canal system capacity will allow for the extra water above their irrigation demand; (2) Kittitas will not incur any costs associated with

transportation of the extra water; (3) there are no negative impacts to other Yakima Irrigation Project water users; and (4) flow in the Yakima River below Easton Diversion Dam is in excess of 105 cfs. In addition to providing flows, the agreement provides for maintaining stream gaging stations to monitor flows to ensure the additional flow provided to Taneum Creek reaches the Yakima River. Five gaging stations have been constructed in Taneum Creek to allow for the proper management and documentation of the flows.

The cooperative agreement is subject to inseason evaluation by the cooperating entities and annual review by the Systems Operations Advisory Committee (SOAC), the cooperating entities, and all other interested parties.

The SOAC is a committee comprised of representatives from BOR, WDFW, YIN, U.S. Fish & Wildlife Service (FWS), representing both FWS and National Marine Fisheries Service (NMFS), and a fish biologist representing the irrigators (irrigators refers to all water users in the Yakima drainage area), and is responsible for determining the amount of water that BOR must maintain in the Yakima River at various times of the year to protect the fishery (personal communication, Jack Carpenter, Project Manager, Kittitas Reclamation District, Ellensburg, Washington, October 18, 1994).

During the irrigation season, after the needs of the fishery in the Yakima River are met, on a daily basis, BOR informs Kittitas how much water they can release into the Main Branch Canal for irrigation. From the Main Branch Canal it is diverted to the South Branch Canal and Taneum Chute. BOR has control of the water that is released for use in Taneum Chute. During the non-irrigation season Taneum Chute is dry. Kittitas operates Taneum Chute for irrigation solely on the water released by BOR. The proposed project would also operate on the water released for irrigation. Even with the cooperative agreement, the amount of water released by BOR is determined by the amount of water needed in the Yakima River to support the fishery.

Environmental Impacts and Recommendations:

The proposed project would not alter the amount or timing of flows released by BOR; it would just transport the flows via a penstock instead of an open flume. Therefore, operation of the Taneum Chute Project would have little, if any, effect on water or fisheries resources in Taneum Chute or downstream in Taneum Creek. However, NMFS, who was not a party to the Cooperative Agreement, and other resource agencies have commented and made recommendations concerning the additional fish enhancement flows and the resultant environmental conditions they will create. We have addressed their concerns in the following discussion.

Fishery Habitat Flow

NMFS recommends that Kittitas be required to provide an additional flow of 20 cfs above flows needed for irrigation. This augmentation flow would pass through Taneum Chute to be delivered to Taneum Creek, and remain in Taneum Creek to the Yakima River. The 20 cfs would enhance fishery habitat and provide fish passage in Taneum Creek. To insure that flows are available during critical migration periods, NMFS also recommends that flow augmentation begin in mid-April and continue until early July, when the canal is used at full capacity for irrigation.

As previously stated, the amount of flow that would be available for fish enhancement flows to Taneum Creek is determined by two groups: (1) SOAC determines the amount of flow needed in the Yakima River to protect the fishery and (2) the cooperators of the Cooperative Agreement determine the amount of flow needed to provide improved fish habitat and passage in Taneum Creek. Both groups, SOAC and the cooperators of the Cooperative Agreement, have some of the same members; both groups work as a team to protect and enhance the fishery in the Yakima River Basin.

As we've said, the proposed project would not control the amount of flow, nor would it control the timing of the flow. Taneum Chute Project would merely convey flows from the South Branch Canal to Taneum Creek for the purposes of irrigation. Also, during the irrigation season, with the Cooperative Agreement, the proposed project would convey additional flows for improved fish habitat and fish passage in Taneum Creek.

Therefore, we conclude the project cannot be held responsible for the amount or timing of augmentation flows for Taneum Creek. We further conclude that the Cooperative Agreement provides a suitable framework for establishing and maintaining augmentation flows and the timing of flows during the irrigation season.

Flow Monitoring

NMFS recommends that the telemetered data on augmentation flows from all gaging stations located in Taneum Creek be made available to all resource agencies.

The gaging stations were installed as part of the Cooperative Agreement. They are located downstream of the confluence of Taneum Chute and Taneum Creek, outside the project boundary, and therefore are not part of the proposed project.

As part of the Cooperative Agreement, Kittitas is to manage the data from the gaging stations and provide the data to anyone

upon request. Accordingly, we conclude that all inte agencies, including NMFS, would have adequate access to the gaging data needed to monitor flows in Taneum Creek.

Ramping Rates

NMFS recommends that Kittitas coordinate any reduction of augmentation flow with WDFW to avoid stranding of anadromous fish in Taneum Creek.

The project can't store water, it only operates on flows that are released for irrigation. When flows are shut off at Easton Dam, the flows gradually recede at the project area. As the flows recede, the project would be shut down and all flows would return to Taneum Chute. The decrease in flows in Taneum Chute would be gradual until all flows would stop.

However, Kittitas and WDFW are cooperating agencies in the Cooperative Agreement. Therefore, we conclude that NMFS' request for Kittitas to coordinate any reduction of flows with WDFW is satisfied through the consultation process provided for in the Cooperative Agreement.

Fish Passage in Taneum Creek

NMFS is concerned that the in-river sill, installed in Taneum Creek to facilitate the operation of a gaging station has the potential to become a fish passage barrier at low water levels and that proper alignment and notching of the sill is necessary. NMFS recommends that Kittitas be required to conduct post-construction evaluation of the in-river sill.

As previously stated, the gaging stations are not part of the proposed project. The gaging stations were installed according to the terms of the Cooperative Agreement. Kittitas installed the gages under the direction of WDFW according to WDFW's passage criteria. Recent on-site evaluations of fish passage in Taneum Creek conducted by WDFW indicate that the existing stream gage structure with a sill does not become a fish passage barrier at low flows, and the remaining 4 gages do not have sills as referred to by NMFS. (John A. Easterbrook, Fishery Biologist, Washington Department of Fisheries, Yakima, Washington, August 10, 1994).

We, therefore, conclude that post-construction evaluation of the in-river sills is unnecessary.

Gas Supersaturation

NMFS is concerned that the proposed project could cause gas supersaturation and asks that an evaluation be conducted.

If vortexing at the intake occurs, hydro project operation can entrain air in water entering the intake. Gas supersaturation can result if entrained air is subjected to pressure greater than 1 atmosphere; fish mortality can result from circulatory and neurological damage as dissolved gasses that enter the fish's bloodstream through respiration form bubbles (Weitkamp and Katz 1980; Bouck 1980).

No plunge pool would be constructed. Water would flow into the penstock from the side of the channel and down the slope (approximately nineteen percent slope) where it would enter the turbine deck and flow out into a settling basin (57 ft.X 38 ft.). The water would flow from the settling basin along a 1,500 foot-long open channel to Taneum Creek.

There are no fish in Taneum Chute or the 1,500 foot channel to Taneum Creek. Therefore, when the water reaches the settling basin, if it is supersaturated, no fish would be affected. Also, when the water reaches the settling basin the gases would come out of solution and rapidly equilibrate. As the water flows down the channel to Taneum Creek, it would also release gases and equilibrate.

Therefore, we conclude, that if supersaturation did occur as a result of water flowing through the penstock, equilibrium would occur before the water reached Taneum Creek. Therefore, a study is not needed.

Project Operation Time Period

Both NMFS and WDFW recommend that the project only be operated during the regular irrigation period, April through October. They further recommend that the project be prohibited from operating solely for power production.

During the irrigation season, Kittitas releases water at Easton Dam. The amount of flow released is determined on a daily basis by BOR. Under the guidelines of the Cooperative Agreement, BOR will be releasing an additional fish enhancement flow, but this flow will only be released during the typical irrigation season. Kittitas proposed to operate the project during the typical irrigation season on irrigation and fish enhancement flows.

Therefore, we recommend that the proposed project only operate during the typical irrigation season (April through October) and generate power on irrigation, or fish enhancement flows, or both. Further, no flows should be provided solely for generation. An amendment to the License would be required for Kittitas to generate other than during the typical irrigation season.

False Attraction of Migrating Anadromous Species

Kittitas proposes to install a fish barrier at the confluence of Taneum Chute and Taneum Creek, if needed, when anadromous fish are reintroduced to Taneum Creek.

NMFS and WDFW recommend the installation of a fish barrier or velocity barrier at the bottom or slightly downstream of the existing drop structure at the confluence of Taneum Chute and Taneum Creek during project construction. This would prevent migrating species from entering the chute where they would be subject to delay, injury, or mortality.

Anadromous fish use a variety of environmental cues to locate their spawning areas. Of these cues, stream currents play a key role in guiding migrating salmonids to their natal streams. Based on these behavioral characteristics, anadromous species are vulnerable to delay, injury, and mortality from flows entering streams from artificial sources, such as hydropower tailraces. Therefore, migrating anadromous species of fish could potentially be adversely impacted by the outflow released from Taneum Chute into Taneum Creek during periods of high irrigation flow.

Under most flow conditions, the drop structure located at the end of Taneum Chute would serve as a barrier to migrating adult salmonids. However, if streamflows were high in Taneum Creek but low in Taneum Chute, the drop structure may not serve as a total hydraulic barrier to adult salmon and steelhead. As a result, salmonids could potentially navigate past the drop structure into Taneum Chute and the powerhouse area where they would be subject to delay, injury and mortality.

Therefore, in order to exclude possible migrating salmonids at all potential stream and chute flows, an appropriate fish barrier is needed at the confluence of Taneum Chute and Taneum Creek prior to project operation.

We discuss the cost of this measure in the Developmental Resources section and make our final recommendation in the Comprehensive Development Section.

Project Malfunctions

WDFW recommends that the project contain an automatic powerhouse bypass that immediately allows power flows to be spilled into Taneum Chute in the event of a rapid powerhouse malfunction or outage. Sudden dewatering of Taneum Creek as a result of project malfunctions or outages could result in migrating salmonids or resident fish being stranded. WDFW states that an automatic powerhouse bypass would prevent catastrophic flow fluctuations in Taneum Creek downstream of the tailrace that would strand and kill adult and juvenile fish.

Automatic bypass valves, such as those referred to by WDFW, are commonly included in hydroelectric projects to avoid damaging project features as a result of turbine failures or shutdowns. Kittitas has stated that valves such as these would be included in the project. In the event of any project failure, the units would trip and the bypass valves would simultaneously open, providing a constant flow for irrigation and fishery needs. In addition, a telephone dialer would notify service personnel in the event of a failure (letter from LeMoyne Henderson, Secretary-Manager, Kittitas Reclamation District, Ellensburg, Washington, December 30, 1991). Based on this, we conclude that the project would contain sufficient measures to ensure that project malfunctions would not adversely impact aquatic resources in Taneum Creek.

Construction Impacts

WDFW has commented that construction activities including clearing the reservoir, building the dam, powerlines, penstock, and other project facilities could cause substrate quality degradation by the addition of mud and silt to downstream reaches, which would reduce fish production.

The proposed project would be constructed, adjacent to and within, an existing irrigation canal that is dry during the non-irrigation season. Kittitas would construct the proposed project according to the schedule in section V.3, table 2, page 21, and follow the ESCP referred to in Section V.1. Geology and Soils. With project construction taking place during the non-irrigation season and the implementation of the ESCP, project construction impacts to fishery resources would be minimal to none.

Unavoidable Adverse Impacts: None.

3. Terrestrial Resources

Affected Environment: The project would be located in a dry shrub-steppe rangeland. Typical plants are sagebrush, cheatgrass, and wheatgrass. An access road parallels the east side of the existing Taneum Chute; west of the chute is dryland pasture. The only trees in the project area—aspen, willow, and cottonwood—grow next to the existing stilling basin, and along the county road.

Mammals occurring in the project area include deer, elk, and coyote. The project would be located in deer and elk winter range. Several hundred elk use this winter range. Depending on weather conditions, deer and elk may move onto the winter range as early as November and remain as late as April (letter from LeRay Stream, Wildlife Biologist, WDFW, Yakima, WA to Jack Carpenter, Project Manager, Kittitas Reclamation District, June 2, 1995). The Rocky Mountain Elk Foundation (RMEF) plans to

develop a winter elk feeding area and visitor/viewing on land adjacent to the project. Birds in the area include songbirds, raven, golden eagle, red-tailed hawk, sharp-shinned hawk, and Cooper's hawk.

Environmental Impacts and Recommendations:

Revegetation

Construction of the project would result in the short-term disturbance of about 1 acre of grassland. Construction of the tailrace barrier would result in the short-term disturbance of less than 0.1 acre of riparian vegetation along the right bank of Taneum Creek.

WDFW says that any areas where the project removes vegetation would lead to a reduction in wildlife populations. Interior recommends that Kittitas revegetate with indigenous plants areas disturbed during project construction within 6 months of completing construction.

Kittitas proposes to reseed areas disturbed by project construction with grass and shrub species to restore the vegetative cover. Revegetation would mitigate the effects of loss of vegetation on wildlife. Kittitas should prepare a revegetation plan consistent with the ESCP, for the grassland and riparian areas disturbed by project construction. Implementing this plan would ensure that the adverse effects of wildlife habitat loss are mitigated.

Wildlife Disturbance

We said in the draft EA, that under Kittitas' proposed construction schedule (October 15 until December 16 of each year until the project is completed), construction activities could disturb wintering deer and elk, potentially displacing them from winter range near the project. On June 3, 1995, Kittitas filed a revised construction schedule that it believes would minimize disturbances to wintering ungulates (table 2). We agree with Kittitas because: (1) all major construction activities using heavy equipment would be completed by early November; (2) activities from mid-November to mid-December would involve light trucks and occur near the county road where similar types of disturbance already occur; and (3) provisions are included to delay installation of generating equipment and associated wiring, until spring if winter storms bring deer and elk down onto the winter range early.

Kittitas should follow the schedule as proposed, and it should consult with, and obtain the concurrence of, Interior and WDFW before making any modification to the schedule. This will provide Kittitas a mechanism by which it may efficiently make

minor changes to the schedule to resolve unforeseen problems that may arise during construction, and still ensure that disturbances to wintering ungulates are minimized.

Table 2. Proposed construction schedule for the Taneum Chute Project

Period	Activity
Early-Spring	Contract with successful bidder.
	Contractor fabricates large underground pipe off-site.
Mid-August	Water flows in flume starting to drop off; on-site excavation and installation of buried pipe occurs, beginning at the county road.
Early-October	Water is often off or nearly off; piping will be complete. Majority of hillside is reseeded at this time. Cut into the existing canal and stilling basin can be started.
Mid-November	Project construction limited to installation of generating equipment and associated wiring. This phase can be delayed until early spring if an early severe winter system settles in bringing the ungulates out of the high country.
Mid-December	Project is complete except for testing and touch up seeding which will be performed in early spring.

(Source: letter from Michael Lonergran, Project Engineer, Kittitas Reclamation District, June 3, 1995)

The project wouldn't be likely to affect deer, elk, or other wildlife after construction is completed. Kittitas says that the noise level during project operation would be the same or lower than the level at the stilling basin during present operation of the open flume. Also, the project wouldn't operate during the winter, so there wouldn't be any noise that could affect wintering wildlife. Kittitas would bury the penstock and transmission line (see the discussion on raptor protection). Therefore, the project would have no effect on the travel and migration routes of deer, elk, and other wildlife, since the buried penstock would carry flows, rather than the existing open flume, the wildlife drowning hazard and migration barrier created

by the existing water-filled flume during the irrigation season would be eliminated.

Raptor Protection

Transmission lines may be an electrocution hazard for golden eagles and other raptors large enough to touch two energized wires or other hardware at the same time. WDFW says that the proposed transmission line may negatively impact some bird species.

Kittitas originally proposed to build an above-ground transmission line. Now, however, Kittitas says that Puget Power will install a buried line to the county road bridge, which is within a few feet of the proposed turbine deck site, so the project wouldn't need an above-ground transmission line (letter from Brian Lenz, Area Manager, Puget Power, Ellensburg, Washington, September 23, 1994). Interconnecting the project to Puget Power's buried line would require a buried project transmission line. Burying the transmission line would adequately protect raptors using the project area.

Unavoidable Adverse Impacts: Construction of the project would result in the short-term disturbance of about 1 acre of grassland and less than 0.1 acre of riparian vegetation. Wildlife would avoid the project construction site during construction periods.

4. Threatened and Endangered Species

Affected Environment: Two federally listed animal species--the threatened bald eagle and the endangered gray wolf--may occur in the project area (letter from David C. Frederick, State Supervisor, U.S. Fish and Wildlife Service, Olympia, Washington, May 16, 1994).

FWS says that wintering bald eagles may occur in the vicinity of the project from about October 31 through March 31. WDFW says that the project area is in an historical bald eagle wintering territory and that two bald eagles were observed within about one mile of the proposed project on February 2, 1995 (letter from LeRay Stream, Wildlife Biologist, WDFW, February 2, 1995). Eagles may use Taneum Creek. Kittitas, however, observed no bald eagles during periodic operation and maintenance visits to the project area from January 7, 1991, to June 7, 1991.

A search of WDFW's Natural Heritage database for gray wolf sightings in Kittitas County provided 17 records from April 1978 through March 1993 (letter from Tom Owens, Manager, Wildlife Survey Data Management, WDFW, Olympia, Washington, to David Turner, Wildlife Biologist, Federal Energy Regulatory Commission, Washington, D.C., February 21, 1995). The sightings ranged from

individuals to eight wolves, including adults and young. Two sightings were about 3.5 and 3 miles west of Taneum Chute (November 1991 and 1992, respectively), with the remaining being greater than about 13 miles, predominantly west and north of Taneum Chute.

Environmental Impacts and Recommendations:

Bald Eagle

The only trees in the project area grow next to the county road and vehicular traffic may discourage eagles from perching in those trees. WDFW recommends that a cottonwood tree about 50 feet west of the existing chute, adjacent to the county road, be protected as a potential bald eagle perch site (letter from LeRay Stream, Wildlife Biologist, WDFW, February 2, 1995). This tree is outside the proposed construction limits for this project, and thus should not be impacted.

As we say in the section on terrestrial resources, the project wouldn't have an above-ground transmission line. Therefore, there wouldn't be an electrocution hazard for bald eagles.

Kittitas proposes to install a fish barrier at the confluence of Taneum Chute and Taneum Creek. This measure would prevent any salmon that may use the creek in the future from entering the chute and possibly being killed by the turbines. Therefore, the project would have no effect on eagle food sources.

In a letter dated February 3, 1995, FWS concurred with our finding in the draft EA that the proposed project isn't likely to adversely affect bald eagle.

Gray Wolf

In the draft EA, we concluded that project construction may affect the endangered gray wolf for the months of October, November, and December for two years, because construction activities may displace wintering deer and elk—the principal food source of gray wolves. We also said that given the short-term duration of the disturbance, impacts should be minimal, and that no long-term impacts were expected because Kittitas wouldn't build any new roads and increased disturbance during project operation would be negligible.

On December 28, 1994, we requested formal consultation with FWS pursuant to section 7 of the Endangered Species Act. Before FWS could concur with our effect determination, FWS required additional information on wolf sightings; wintering deer and elk habitat, distribution, and numbers; project impacts; and

alternatives to construction time frames (letter from David Kaumheimer, Field Supervisor, FWS, Moses Lake, Washington, February 3, 1995).

On March 31, 1995, we filed additional information with the FWS. Based on the new information, we concluded that the project was not likely to adversely affect the gray wolf and rescinded our request for formal consultation. We reached a "not likely to adversely affect" conclusion because: (1) displacement of wintering ungulates would be temporary and of short duration (1.5 months for 1 to 2 years); (2) the estimated potential displacement area (2 mi^2) is small (<7%) in relation to available winter range; (3) potential impacts on the gray wolf from prey displacement or altered foraging behavior would be negligible; (4) a plan to coordinate construction activities with WDFW, FWS, and the Elk Foundation to identify construction periods that would minimize potential disturbances to wintering ungulates would reduce potential impacts to an insignificant level; and (5) no long-term impacts to wolves or their prey are expected to occur.

Kittitas subsequently filed a revised construction schedule (table 2) that we believe reduces impacts on wintering ungulates to a negligible level. Kittitas should follow the proposed schedule. On July 10, 1995, FWS concurred with our determination that the proposed project would not likely adversely affect the gray wolf, contingent upon the implementation of Kittitas' July 3, 1995, construction plan (letter from David Kaumheimer, Field Supervisor, FWS, to Lois Cashell, FERC, July 10, 1995). Their concurrence concludes informal consultation pursuant to Section 7(a)(2) of the Endangered Species Act of 1973, as amended.

Unavoidable Adverse Impacts: None.

5. Aesthetic Resources

Affected Environment: The proposed project would be located within Taneum Creek Valley, in the eastern foothills of the Cascade Range. The valley is oriented east to west and is bounded on the north side by a ridge sloping away from the valley floor at about 16 percent. Taneum Chute--the proposed project site--sits on this slope. Interstate 90, the main transportation corridor from the Seattle area to Eastern Washington, is just north of Taneum Chute.

The north slope near Taneum Chute is mostly void of woody vegetation, permitting a vast view of the surrounding area, including the Cascade Range to the west.

The Rocky Mountain Elk Foundation plans to construct a wildlife viewing and education center on the north slope, directly east of Taneum Chute. The primary views from the

preferred center site would look west--over, at, and beside Taneum Chute and the proposed hydro project. If constructed, the $1.2 million center could attract close to 400,000 visitors annually[2].

Environmental Impacts and Recommendations:

Visual Effects on Visitor Center

During the consultation process, the Rocky Mountain Elk Foundation recommended several measures to ensure the proposed project wouldn't affect elk or the planned wildlife viewing and education center. Relative to aesthetics, the Elk Foundation recommends Kittitas bury the penstock and all transmission lines between the project and Interstate 90.

Primarily in response to the Elk Foundation's concerns, Kittitas made several project design modifications to eliminate potential impacts to wildlife and aesthetic resources. Specifically, Kittitas proposes to: (1) bury the penstock parallel with and next to Taneum Chute; (2) install the turbines under the Taneum Road Bridge where Taneum Road crosses over Taneum Chute; (3) house the four turbines in a turbine deck--instead of a larger, more visible powerhouse structure; and (4) use a short connection line from the project transformer to a planned Puget Sound Power & Light Company buried distribution line.

The planned Puget Sound Power & Light Company distribution line would be buried parallel to Taneum Road and tie into Kittitas' line at the project site near Taneum Road Bridge.

Burying the penstock and installing the turbine deck beneath Taneum Road Bridge shouldn't diminish or detract from the current view as seen from the site of the planned wildlife viewing and education center.

Unavoidable Adverse Aesthetic Impacts: None

6. Cultural Resources

Affected Environment: The SHPO says no cultural resources listed or eligible for inclusion in the National Register of Historic Places are known in the project area and that the project would have no effect on such resources (letter from Leonard T. Garfield, Architectural Historian, Washington Office

[2] Rocky Mountain Elk Foundation. undated. Heart k Ranch Viewing and Education Center: site feasibility study. Rocky Mountain Elk Foundation, U.S. Forest Service, and the Bureau of Land Management. 14 pp. with appendices.

of Archeology and Historic Preservation, Olympia, Washington, May, 1989 & October 9, 1991; Dr. Robert G. Whitlam, State Archeologist, Washington Office of Archeology and Historic Preservation, Olympia, Washington, July 11, 1994). We agree. National Park Service (NPS) (letter from Richard L. Winters, Associate Regional Director, National Park Service, Pacific Northwest Region, Seattle, Washington, October 7, 1991) and BOR (letter from Harvey R. Nelson, Bureau of Reclamation, Yakima Project Office, Yakima, Washington, December 9, 1991) reviewed these findings and have no objections.

The YIN have not identified any cultural resources of concern to the YIN. YIN staff have expressed concerns about fisheries issues, and indicated support of the project. The fisheries issues should be addressed through the cooperative agreement discussed in Section III.A.3, in which the YIN is a cooperating agency.

Interior (letter from Charles S. Polityka, Regional Environmental Officer, National Park Service, Office of Environmental Policy and Compliance, Portland, Oregon, May 9, 1994) misinterprets a cultural resources issue statement in the Commission's Scoping Document 1 (Federal Energy Regulatory Commission 1994) to mean the effect of the project on cultural resources has not been evaluated. Cultural resources impacts have been evaluated as indicated in this section.

Environmental Impacts and Recommendations: There is the possibility that unrecorded historic or archeological sites, such as buried archeological sites, may be discovered during project operation or other activities conducted in the project area (letter from Leonard T. Garfield, Architectural Historian, Washington Office of Archeology and Historic Preservation, Olympia, Washington, May, 1989 & October 9, 1991; Dr. Robert G. Whitlam, State Archeologist, Washington Office of Archeology and Historic Preservation, Olympia, Washington, July 11, 1994). We note, however, the project area is disturbed from initial construction of the irrigation system, and the probability of any remains with sufficient integrity to qualify as a National Register site is low.

We recommend that, if any sites are discovered, Kittitas: (1) consult with the SHPO, BOR, and the BLM; (2) prepare a cultural resources management plan and a schedule to evaluate the significance of the sites and to avoid or mitigate any impacts to Register eligible sites; (3) base the plan on recommendations of the SHPO, the BOR, and the BLM, and on the Secretary of the Interior's Guidelines for Archeology and Historic Preservation; (4) file the plan for Commission approval, together with the written comments of the SHPO, BOR, and the BLM; and (5) take the necessary steps to protect the discovered archeological or

historic sites from further impact until notified by the Commission that all of these requirements have been satisfied.

The Commission may require cultural resources work and changes to cultural resources management plans based on the filings. Kittitas would not be allowed to implement a cultural resources management plan or begin any land-clearing or land-disturbing activities in the vicinity of any discovered sites until informed by the Commission that the requirements have been fulfilled.

Unavoidable Adverse Impacts: None.

7. Recreation and other Land Uses

Affected Environment: Taneum Chute and the lands within its right-of-way are not used for recreational purposes due to the hazardous conditions associated with high flow velocities in Taneum Chute. Public use and access to Taneum Chute area is restricted during the irrigation season, which lasts from about the end of May to the first of October.

The proposed project boundary includes about 11.5 acres of public land, all of which is part of the Kittitas' Reclamation Project. Of the 11.5 acres, BOR manages about 7.5 acres, and the BLM manages the remaining 4 acres. The Elk Foundation owns most of the lands adjacent to the chute in the project vicinity. The land on the west side of the chute within the proposed project boundary is utilized for livestock grazing.

Environmental Impacts and Recommendations:

Livestock Grazing

Interior states that project construction activities could interfere with livestock grazing activities. Interior recommends that Kittitas replace any fences that are moved or temporarily relocated, using BLM standard designs.

We agree with Interior. We recommend Kittitas consult with the BLM Wenatchee Resources Area Office prior to any construction activities.

Land Ownership

The Rocky Mountain Elk Foundation claims they own all the land within the W 1/2 NW 1/4 of Section 5, Township 18 N., Range 17 E., Willamette Meridian, Washington, (letter from Grant D. Parker, Attorney, Rocky Mountain Elk Foundation, Missoula, Montana, May 22, 1992) of which the proposed project would affect about 7 acres. Kittitas believes the entire project would lie on federal lands right-of-way, within the jurisdictional boundaries

of either BLM or BOR. Interior states that the 7 acre question is under easement to BOR.

Regardless of the conflicting claims or final outcome, if the Commission issues a license for the project, Kittitas would have to acquire title in fee or the right to use, in perpetuity, all project land within 5 years from the date of issuance of license (standard "L form" license condition, article 5, project land use rights).

Noise Effects on Visitor Center

As we've said in the Aesthetic Resources section, the Rocky Mountain Elk Foundation plans to develop a wildlife viewing area and visitor center just east of Taneum Chute.

The Elk Foundation is concerned that the noise from the turbines and chute could adversely affect visitors to the center. The Foundation suggests that burying the penstock and providing muffling and insulation in the powerhouse may be able to reduce the noise to an acceptable level, but would like assurances that there would be no adverse impacts from the noise of the proposed project.

Kittitas thinks the noise level of the plant would be about the same as the existing noise level of energy dissipation in the stilling basin. Kittitas also points out that: (1) most of the visitation would occur during the elk feeding period, when the project wouldn't be operating, and (2) the existing noise from water flowing down the open chute would be eliminated.

We don't think the sounds of the project would be much greater, if at all, than those sounds currently occurring in Taneum Chute. However, since Kittitas proposes to situate the turbines on a turbine deck, the noise from the turbines could be greater than if a traditional powerhouse structure was used. We don't know if Kittitas plans to install any baffling or sound proofing features on the turbine deck structure.

We agree with the Elk Foundation that noise from the project shouldn't cause adverse impacts to visitors at the planned viewing center. Even though most elk activity will occur during the period when the project won't be running, visitors will continue to visit the viewing center year round. Therefore, we recommend Kittitas consult with the Elk Foundation and BOR to determine whether design modifications to the turbine deck are needed to minimize turbine noise. If after construction, the noise from the turbines affects visitors at the center, additional sound proofing measures should be implemented.

Recreation Plan

Interior recommends Kittitas develop a recreation plan. Kittitas doesn't propose a recreation plan.

In the DEA we concluded that the proposed project would have no effect on existing recreation and would not create any new recreational opportunities because the velocity of the water in Taneum Chute is a safety hazard and the area around the project is used for farming and livestock. We did not receive any comments or new information contrary to this conclusion. Therefore, we conclude that Kittitas does not need to develop a recreation plan.

Unavoidable Adverse Impacts: As proposed, the noise of the turbines could have a minor adverse effect on visitors to the planned wildlife viewing area and visitor center. To minimize this potential impact, we recommend: (1) additional sound proofing measures be considered during final design of the project, and (2) if sound emitted from the turbine deck affects visitors at the viewing center, implementation of additional sound proofing measures.

C. Alternative of No-Action

Under the no-action alternative, there would be no changes in the existing physical, biological, or cultural resources of the area.

VI. DEVELOPMENTAL ANALYSIS

In this section, we compare the cost of power from the project to the cost of alternative power at current prices. To conform to the Commission's new approach to evaluating project economics[3], we evaluated economics of the project over a 30-year period of analysis using the current cost of alternative resources to value project power and the estimated first-year cost of production.

Assumptions used in our analysis include: (1) Kittitas 1995's avoided energy and capacity cost of about 31.1 mills/kWh., (2) our estimate of about $916,000 for construction and $26,000 annually for operation and maintenance (o&m), (3) Kittitas's estimate of a 2-year construction period, and (4) discount and interest rates of 8 percent.

With the above assumptions, the project as proposed by Kittitas would produce about 1.86 GWh of energy at a cost of

[3] See Mead Corporation, Publishing Paper Division, 72 FERC Para. 61,027 (July 13, 1995).

about $58,000 or 31.3 mills/kWh more than the current cost of alternative power.

As we've said, Kittitas has signed a cooperative agreement to provide additional flows through Taneum Chute. However, since the agreement did not stipulate a flow, we evaluated the additional energy benefits for a range of flows--15, 20, and 25 cfs. With this range, the project could produce about 2.42, 2.62, and 2.81 GWh of energy annually, respectively.

With these additional flows, the project would still cost more than the alternative power by about $30,000 to $41,000 annually, or 10.6 to 17.1 mills/kWh.

In the Aquatic Resources section, we also recommend that Kittitas install an appropriate fish screen at the confluence of Taneum Chute and Taneum Creek to prevent fish from entering the chute. We estimate that this fish screen would cost about $10,000 with $1,000 a year for o&m. These costs would have minimal effect on the project's economics, costing about $2,000 a year, levelized over the 30-year period of analysis.

VII. COMPREHENSIVE DEVELOPMENT AND RECOMMENDED ALTERNATIVE

A. Consistency with Comprehensive Plans

Section 10(a)(2) of the FPA requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project. Under section 10(a)(2), federal and state agencies filed 65 plans that address various resources in Washington. Of these, we identified three plans relevant to this project.[4] No conflicts were found.

B. Recommended Alternative

Sections 4(e) and 10(a)(1) of the FPA, require the Commission to give equal consideration to all uses of the waterway on which the project is located. When the Commission reviews a hydropower project, the recreational, fish and wildlife, and other nondevelopmental values of the involved waterway are considered equally with its electric energy and other developmental values. In determining whether, and under what conditions, a hydropower license should be issued, the

[4] (1) Spokane Resource Area Management Plan and final EIS, 1985, Department of the Interior, Spokane, Washington; (2) Northwest Conservation and Electric Power Plan, 1986, Power Planning Council, Portland, Oregon; and (3) Columbia River Basin Fish and Wildlife Program, 1987, Northwest Power Planning Council, Portland, Oregon.

Commission must weigh the various economic and environmental tradeoffs involved in the decision.

Based on our independent review and evaluation of the proposed project, the project with our additional recommendation, and the no-action alternative, we have selected the proposed project, with staff's recommended enhancement measure - for Kittitas to install a fish barrier at the confluence of Taneum Chute and Taneum Creek now rather than later - as the preferred option.

We recommend this option because construction and operation of the project would: (1) have very minor environmental impacts; (2) allow Kittitas to make power to be used to satisfy the Kittitas pumping demand or sell to an existing electric utility; and (3) conserve nonrenewable fossil fuels and benefit atmospheric pollution.

We recommend that Kittitas construct a fish barrier to prevent anadromous fish that will likely use Taneum Creek in the near future from entering Taneum Chute. The fish barrier will prevent anadromous fish from entering Taneum Chute where they would be subject to delay, injury, or mortality (see Aquatic Resources Section). Given the structural characteristics of the existing drop structure, we believe that under certain hydrologic conditions returning adults may be adversely affected. The fish barrier would protect the investment in fish protection that is being made in the Yakima River Basin and in Taneum Creek. We believe that benefits to anadromous fish would justify the relatively minor cost of $10,000 (annual levelized of $2,000).

We recommend that the fish barrier be constructed at the time of project construction, instead of when anadromous fish are reestablished in Taneum Creek as proposed by Kittitas. Although anadromous fish are not there now, there is a high probability that they would be reestablished in Taneum Creek in the near future as a result of efforts to screen irrigation diversions on the creek and the release of enhanced flows. Building the barrier now would avoid sedimentation effects on anadromous fish that would result if construction occurred later.

Further, waiting to install the barrier would not benefit project economics. In fact, it likely would be less expensive for Kittitas to construct the barrier at the same time as project construction because construction equipment would already be at the site.

From our evaluation of the environmental and economic effects of the project, we conclude that licensing the Taneum Chute Hydroelectric Project with and additional recommendation would best adapt the project to a Comprehensive Plan for the Yakima River Basin.

VIII. RECOMMENDATIONS OF FEDERAL AND STATE FISH ANL .IFE AGENCIES

Under the provisions of the FPA, as amended by the Electric Consumers Protection Act of 1986, each hydroelectric license issued by the Commission shall include conditions based on recommendations provided by federal and state fish and wildlife agencies for the protection, mitigation, and enhancement of such resources affected by the project.

Section 10(j) of the FPA states that whenever the Commission believes that any fish and wildlife agency recommendation is inconsistent with the purposes and the requirements of the FPA or other applicable law, the Commission and the agency shall attempt to resolve any such inconsistency, giving due weight to the recommendations, expertise, and statutory responsibilities of such agency.

As previously stated NMFS and other agencies have made recommendations that focus on the fish enhancement flows. Most of these recommendations cannot be satisfied by the project because it does not control flow amounts or timing. These issues are addressed in the Cooperative Agreement as discussed in the Aquatic Resources Section.

We have recommended that all agency recommendations subject to section 10(j) be included in any license issued for this project as shown in table 3.

Recommendations that are considered outside the scope of section 10(j) have been considered under section 10(a) of the FPA but were not adopted. These recommendations are addressed in the specific resource sections of this EA.

Table 3. Analysis of fish and wildlife agency recommendations for the Taneum Chute Project (source: staff)

Recommendation	Agency	Within scope of 10(j)	Conclusion
Construct an adult fish barrier at the confluence of Taneum Chute and Taneum Creek	WDFW NMFS	Yes	Adopted
Provide a minimum flow of 20 cfs through Taneum Chute to Taneum Creek.	NMFS	No	Not adopted
Begin flow augmentation in mid-April and continue until early July.	NMFS	No	Not adopted
Coordinate any reduction in augmentation flow with WDFW to avoid stranding of anadromous fish.	NMFS	No	Not Adopted
Evaluate stranding potential at critical passage points in Taneum Creek.	NMFS	No	Not adopted
Provide access to telemetered data on flows from all gaging stations located in Taneum Creek to all resource agencies.	NMFS	No	Not Adopted
Conduct post-construction evaluations of the in-river sills installed to allow the telemetered river level gauges to operate. The sills require proper passage channels to allow fish to pass up and down-stream.	NMFS	No	Not adopted
Prohibit the operation of the project solely for power production.	NMFS WDFW	No	Adopted
Include a passive powerhouse bypass feature that immediately allows power flows to be spilled into Taneum Creek in the event of a rapid power malfunction or outage.	WDFW	Yes	Adopted
Reserve authority to modify or supplement terms and conditions	WDFW NMFS	No	Not Adopted.

Revegetate all newly disturbed land areas with plants indigenous to the area within 6 months of completion of project construction.	FWS	Yes	Adopted

XI. FINDING OF NO SIGNIFICANT IMPACT

In this environmental assessment, we identify the resources the Commission's licensing decision could adversely impact and discuss the specific impacts the Taneum Chute Hydroelectric Project would have on the human environment.

The proposed project would result in short-term disturbance of about 1 acre of grassland and less than 0.1 acre of riparian vegetation. After construction, the noise of the turbines could have a minor adverse effect on the planned viewing area and visitor center. However, we find that none of the resources, including geology and soils, aquatic resources, terrestrial, threatened and endangered species, cultural resources, aesthetics and recreational resources, would suffer significant adverse site-specific or cumulative impacts under the proposed action.

We prepared this EA for the Taneum Chute Project in accordance with the National Environmental Policy Act of 1969. On the basis of this independent environmental analysis, issuance of a license for the project would not constitute a major federal action significantly affecting the quality of human environment. Therefore, an environmental impact statement (EIS) is not required.

X. LITERATURE CITED

Federal Energy Regulatory Commission. 1994. Scoping Document 1, Taneum Chute, FERC Project No. 10625-003, Environmental Assessment. Washington, D.C.

Kittitas Reclamation District. 1992. Application for license for the Taneum Chute Hydroelectric Project, FERC Project No. 10625. Ellensburg, Washington. March 27, 1992.

Kittitas Reclamation District. 1993. Progress report for Taneum Chute Hydroelectric Project, FERC No. 10625-003. June 10, 1993.

Kittitas Reclamation District. 1993. Response to Additional Information for the Taneum Chute Hydroelectric Project, FERC Project No. 10625. Ellensburg, Washington. August 27, 1993.

Kittitas Reclamation District. 1988. Letter from James V. Leishman, P.E., Liaison Officer, Taneum Chute Hydroelectric Project, to Jerry Parker, District Chief, U.S. Geological Survey. December 12, 1988.

Kittitas Reclamation District, Bonneville Power Administration, Yakima Indian Nation, Washington State Department of Fish and Wildlife, and Bureau of Reclamation. 1994. Taneum Creek Habitat Enhancement, Fish Passage and Protective Facilities Evaluation Cooperative Project 1994. Dated September 21, 1994.

XI. LIST OF PREPARERS

Gaylord W. Hoisington -- EA Coordinator, Geology and Soils (Soil conservationist; B.A., Recreation/Land Use).

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Kim A. Nguyen, Developmental Analysis -- Civil Engineer; B.S., Engineering

Dianne Rodman -- Terrestrial Resources and Threatened and Endangered Species (Ecologist; M.S., Biology).

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Edwin Slatter -- Cultural Resources (Archeologist; Ph.D., Anthropology)

APPENDIX A

Comments on Draft Environmental Assessment and

Staff Comments

COMMENTS

Kittitas County Planning Department
Room 182, Courthouse • Ellensburg, WA 98926 • (509) 962-7506

December 9, 1994

94 DEC 14 AM 10:15
FEDERAL ENERGY REGULATORY COMMISSION

Ms. Lois D. Cashel, Secretary
Federal Energy Regulatory Commission
825 North Capital Street NE
Washington DC, 20426

RE: DEA - Taneum Chute Hydroelectric Project
FERC Project No. 10625 — 003
Kittitas Reclamation District

Dear Ms. Cashel:

Thank you for the opportunity to respond. Based on the information submitted with the referenced Draft Environmental Assessment, the ownership of the subject property remains in question at this time. However, portions of the subject property appear to be located adjacent to a designated shoreline (See 90.58 RCW, the Shoreline Management Act). Accordingly appropriate permits may be required from Kittitas County prior to construction of improvements and/or operation of the proposed facility. County shoreline jurisdiction applies to all lands excluding Federal ownership within two hundred feet landward of the ordinary high water mark of Taneum Creek. Non-exempt activities require a shoreline permit when the total cost or fair market value of the development exceeds $2,500.00, or when development materially interferes with the normal public use of the shoreline or its waters. Of course, if BOR or BLM obtains fee title ownership of the property in question, this issue shall become mute. This shall not however, be construed to included leased lands or easements as all state and private property is subject to County's Shoreline Master Program. Upon receipt of a tax parcel number, our office will gladly assist you in determining the property's ownership and proper course of action.

Should you have any questions, need additional information, or if I can be of any further assistance, please do not hesitate to contact our office.

Sincerely,
The Kittitas County Planning Department

Neil R. White, Planner

cc Doug Piner - Shorelands

RESPONSES

A License from FERC for the construction and operation of the Taneum Chute Hydroelectric Project would not exclude Kittitas from having to obtain all federal, state, and local permits necessary for construction of the project.

According to a letter filed by the U.S. Dept. of Interior, dated May 9, 1994, Taneum Chute Project would occupy 4 acres of land administered by the Bureau of Land Management (BLM), and about 7 acres under easement to the Bureau of Reclamation (BOR).

COMMENTS

RESPONSES

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
3704 Griffin Lane SE, Suite 102
Olympia, Washington 98501-2192
(206) 753-9440 FAX (206) 753-9008

December 27, 1994

Lois D Cashell, Secretary
Federal Energy Regulatory Commission
825 North Capitol St , NE
Washington, DC 20426

Subject: **Comments on FERC's Draft Environmental Assessment for the Tanoum Chute Hydroelectric Project (FERC # 10625-001).**

Dear Ms. Cashell.

This is in regards to the Federal Energy Regulatory Commission's (FERC) draft Environmental Assessment (EA), dated November 30, 1994, for the above-referenced proposed hydroelectric project The FERC made a Finding of No Significant Impact and recommends licensing the proposed project, with certain conditions The U S Fish and Wildlife Serv has reviewed the draft EA and has no objection to the Finding of No Significant Impact.

We appreciate the opportunity to provide comments on the draft EA. If you have any questions, please contact Don Haley at our Moses Lake Office (509) 765-6125

Sincerely,

Nancy J Gloman

David C. Frederick
State Supervisor

dh/kr
c NMFS, Portland (Brown)
YIN, Toppenish (Tuck)
WDFW, Yakima (Easterbrook)December 27, 1994

Comment Noted.